

Amendments to the Specification

Please replace the paragraph on page 4 beginning at line 4 with the following new paragraph:

FIG. 1A illustrates a graph showing an auto-correlation result when $\alpha = 2$ in the equation (5), and FIG. 1B illustrates a graph showing a cross-correlation result between codes in the same class when $\alpha = 2$ in the equation (6). FIG. 2A illustrates a graph showing an auto-correlation result when $\alpha = 4$ in the equation (5), and FIG. 2B illustrates a graph showing a cross-correlation result between a pair of codes of class 'E' and 'F' when $\alpha = 4$ in the equation (6). For an example, as can be known from FIG. 2A, the auto-correlation function of the frame synchronization words shown in table 1 has a maximum correlation result at a delay time point '0' ($\tau = 0$), and a ~~maximum~~ minimum correlation result at a sidelobe which is a delay time point other than the delay time point '0'. As can be known from FIG. 2B, the cross-correlation function of each code pair of the frame synchronization words in the same class shows a maximum correlation result of a negative polarity at a middle delay point $\tau = 7$.

Please replace the paragraph on page 4 beginning at line 17 with the following new paragraph:

Thus, in the related art, the frame synchronization is attained, and identified by using correlation of the frame synchronization words shown in table 1. However, though a performance of attaining the frame synchronization can be made properly when 15 slots are

transported for one frame, the performance can not be made properly when a minimum 8 slots and maximum 14 slots are transported for one frame like in ~~an~~ a compressed mode which is a character of a W-CDMA. Moreover, in the related art, correlation of pilot patterns are made for identification of frame synchronization and detection of the out-of frame synchronization. When identification of the frame synchronization and detection of the out-of frame synchronization is made from a result of pilot pattern correlation, a preset threshold value is provided in the related art for comparing the correlation value calculated for each slot and the threshold value, to identify the synchronization and detect an out-of synchronization.

Please replace the paragraph on page 9 beginning at line 4 and bridging page 10 with the following new paragraph:

As shown in table 3, a slot format of the DPCCH having the TFCI is changed in the compressed mode. That is, as shown in ~~FIG. 3~~ table 3, there are two more modes having separate indices added thereto. For an example, the slot format #2 is for field information of a general mode, and the slot formats #2A and #2B are for field information for the compressed mode. As can be known from the whole table 3, a number of transmissive slots per a frame are 15 in the general mode, and minimum 8 in the compressed mode. That is, at least 8 slots of information are transmitted in the compressed mode. The following table 4

Serial No. 09/783,041
Amdt. dated December 23, 2004
Reply to Office Action dated June 23, 2004

Docket No. K-260

shows pilot bit patterns of an uplink DPCCH having the present invention applied thereto, wherein a number of pilot bits N_{pilot} in a slot is 3, 4, 5, or 6. The next table 5 shows pilot bit patterns of an uplink DPCCH having the present invention applied thereto, wherein a number of pilot bits N_{pilot} in a slot is 7, or 8.